

I claim:

1. An electronic component, comprising:

at least two wiring boards, and at least one of said wiring boards having apertures formed therein;

at least two semiconductor chips each mounted on a respective wiring board of said wiring boards and electrically connected to said respective wiring board; and

solder connections, said wiring boards stacked one on top of another substantially parallel to one another and interconnected mechanically and electrically by said soldered connections resulting in at least two stacked wiring boards, said soldered connections extending through said apertures in at least one of said wiring boards and over one or more levels of said stacked wiring boards.

2. The electronic component according to claim 1, wherein said stacked wiring boards have edge regions and said soldered connections are provided in said edge regions.

3. The electronic component according to claim 1, wherein said soldered connections are respectively formed by solder balls lying one on top of another and fused together.

4. The electronic component according to claim 3, wherein said solder balls have a smaller diameter than said apertures.

5. The electronic component according to claim 1, wherein said wiring boards with said semiconductor chips mounted on them are stacked one on top of another in such a way that a rear side of one of said semiconductor chips faces an underside of a neighboring one of said wiring boards.

6. The electronic component according to claim 1, wherein said wiring boards have undersides with supporting points, and a respective semiconductor chip of said semiconductor chips has a rear side bearing on one of said undersides.

7. The electronic component according to claim 6, wherein said supporting points are plastic buffers disposed centrally on said undersides of said wiring boards.

8. The electronic component according to claim 7, wherein said plastic buffers contain an elastomer.

9. The electronic component according to claim 1, wherein said stacked wiring boards include an uppermost wiring board and an undermost wiring board, and at least one of said uppermost wiring board and said undermost wiring board has near-edge electrical contacts without said apertures.

10. The electronic component according to claim 9, wherein said undermost wiring board has contact terminal areas.
11. The electronic component according to claim 9, wherein said undermost wiring board has contact bumps.
12. The electronic component according to claim 10, wherein said undermost wiring board has solder deposits located on said contact terminal areas.
13. The electronic component according to claim 9, wherein said wiring boards which are not said undermost wiring board or said uppermost wiring board have near-edge electrical contacts with said apertures.
14. The electronic component according to claim 9, wherein said wiring boards which are not said undermost wiring board or said uppermost wiring board have near-edge electrical contacts without said apertures.
15. A method for producing an electronic component, which comprises the steps of:

providing at least two wiring boards having electrical contacts disposed thereon, and at least one of the wiring boards having near-edge apertures formed therein;

mounting semiconductor chips on the wiring boards with a respective semiconductor chip mounted on each of said wiring boards, and electrically connecting the respective semiconductor chip to a respective wiring board of the wiring boards;

applying supporting points to rear sides of the wiring boards facing away from the semiconductor chips;

depositing solder in the near-edge apertures of the wiring boards, with the electrical contacts adjoining the near-edge apertures;

stacking in parallel the wiring boards with the semiconductor chips mounted on them, a rear side of the respective semiconductor chip coming to bear on a respective one of the supporting points; and

melting the solder resulting in mechanical and electrical connections being formed between adjoining levels of the wiring boards forming a stack.

16. The method according to claim 15, which comprises providing the solder in the near-edge apertures in a form of solder balls having a smaller diameter than the near-edge apertures.

17. The method according to claim 15, which comprises providing the solder in the near-edge apertures in a form of solder paste.

18. The method according to claim 15, which comprises fixing mechanically the wiring boards during the stacking step and before the melting step.

19. The method according to claim 15, which comprises forming the semiconductor chips by the further steps of:

stacking a number of semiconductor wafers one on top of another;

connecting contact vias with conductor tracks of the semiconductor wafers lying above or below; and

separating the semiconductor wafers into stacked semiconductor chips.

20. The method according to claim 15, which comprises heating the solder to a soldering temperature for connecting the wiring boards.

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